

**EVALUATING THE SELECTION CRITERIA FOR COMPANY OFFICERS
IN THE LONGVIEW FIRE DEPARTMENT.**

STRATEGIC MANAGEMENT OF CHANGE

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Appendix C Not Included. Please visit the Learning Resource Center on the Web at <http://www.lrc.fema.gov> to learn how to obtain this report in its entirety through Interlibrary

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ABSTRACT

This research project evaluated the knowledge, skill and ability requirements of company officers. The problem was that the Longview Fire Department did not have a structured training or certification program for its company officers. The purpose of this applied research was to identify the required knowledge, skills, and abilities (KSAs) of fire department company officers, and to develop a set of recommendations for implementation of a training or certification program as a prerequisite to promotional testing.

The project used evaluative research methods to identify (a) What are the required knowledge, skills, and abilities of a Lieutenant in the Longview Fire Department? (b) Are there generally recognized knowledge, skill, and ability sets for fire department company officers? and (c) If these recognized knowledge, skill, and ability sets were adopted by the Longview Fire Department, what training would be required to qualify the applicant pool to the new prerequisites?

The procedures employed included a review of literature for established KSAs of company officers. Also included was an evaluation of the department's records regarding the eligible applicant pool, including their current education documentation.

The research discovered that the required KSAs of department Lieutenants were well defined by the job specification, although there were areas of general prerequisite knowledge, safety, and inspections left out. There were several defined sets of KSAs found in the literature, especially through the NFPA and TCFP officer certification processes. The various definitions were compared in an appendix.

The recommendations resulting from the project included: (a) more research into supervisor training in other industries, (b) requiring certification as a Fire Officer I prior to

promotional eligibility, (c) providing necessary training for incumbent company officers, (d) incorporation of state skills checks in future promotional processes, and (e) revising the city job specification to include additional items.

TABLE OF CONTENTS

ABSTRACT.....	3
TABLE OF CONTENTS.....	5
INTRODUCTION	7
BACKGROUND AND SIGNIFICANCE.....	8
LITERATURE REVIEW	10
National Fire Protection Association.....	10
Texas Commission on Fire Protection.....	12
Other sources	13
PROCEDURES.....	16
Assumptions and limitations.....	16
Research methodology.....	17
RESULTS	17
Answers to research questions	18
DISCUSSION	21
RECOMMENDATIONS	23
More research / continuing evaluation.....	24
Require certification as a fire officer i	24
Provide necessary training for the incumbent officers	26

Incorporate the state skills checks in the promotional assessment process	27
Revise the City of Longview job specification for Lieutenant	27
General recommendations	28
REFERENCES	29
APPENDIX A.....	31
APPENDIX B	37
APPENDIX C	2

INTRODUCTION

The decisions surrounding the selection of personnel to fill the role of company officer are both complex and difficult. For many years, the Longview Fire Department has used a system of testing in the selection and promotion of its company officers. The promotional opportunity for the position of Lieutenant (company officer) comes after two years service as an Equipment Operator. There is an evaluation process in place that includes both a written exam and practical exercises. The goal of the selection process should be to choose the individual(s) best suited for the job from the list of applicants.

The problem is that the Longview Fire Department does not have a structured training or certification program for its company officers. This results in a lack of verifiable knowledge regarding supervisory skills and abilities. The minimum requirements to take the exam are now related to time in grade as an Equipment Operator, not any other defined objectives. The purpose of this applied research project is to identify the required knowledge, skills, and abilities of fire department company officers, and to develop a set of recommendations for implementation of a training or certification program with minimum objective criteria meeting those required KSAs as a prerequisite to the testing. Evaluative research methods will be used to answer the following questions:

- 1) What are the required knowledge, skills, and abilities of a Lieutenant in the Longview Fire Department?
- 2) Are there generally recognized knowledge, skill, and ability sets for fire department company officers?

3) If these recognized knowledge, skill, ability sets were adopted by the Longview Fire Department, what training would be required to qualify the applicant pool to the new prerequisites?

Review and evaluation of training and certification records for those in the current eligibility pool will be used to develop a list of required training items to meet the new requirements.

BACKGROUND AND SIGNIFICANCE

The Longview Fire Department has a rank structure in place to define the authority, roles, and responsibilities of its members and to delineate the lines of supervision within the department. The first level of supervision is the company officer. These officers are identified with the rank of Lieutenant and supervise between one and three companies. These companies are assigned to one of seven stations on one of three shifts. This creates a total of 21 Lieutenant positions. These Lieutenants may later promote to the rank of Captain, of which there are three, one assigned to each shift.

For many years, the Longview Fire Department has used a system of promotional testing which includes both seniority and a written exam in the process. The first promotional opportunity for members is from Firefighter to Equipment Operator. There is a two-year minimum service time for Firefighters to be eligible for the Equipment Operator test. This test consists of a written exam, practical skills in basic emergency medical care, and driving and pumping an engine.

After serving for two years as an Equipment Operator, a member becomes eligible to test for Lieutenant. The Lieutenant test involves a written multiple-choice exam covering various topics including departmental standard operating procedures (SOPs), fireground tactics and strategy, and the content of the IFSTA company officer book. The results of this written test qualify candidates for promotion and rank them on the eligibility list. Since 1996 this testing process has also included a practical component. The practical component of the process is not used in defining eligibility. The only way to fail the practical is to not complete the assessment. The practical assessments are used as a ranking tool along with the written exam score. This practical consists of several exercises combined into a one-day assessment center. These exercises include an oral interview board, an “in-box” exercise, a personnel management scenario, and an incident command simulation.

Informal discussions with various department company officers and other members reveal a general feeling that they are not prepared for the role of supervisors prior to assumption of the duties. Several officers, even after being in the leadership role for several years still do not have the confidence that they are adequately trained. This is evidenced by requests over the years for additional supervisory and management training.

The purpose of this applied research project is to identify the required knowledge, skills, and abilities (KSAs) of fire department company officers, and to develop recommendations for implementation of a training or certification program with minimum objective criteria meeting those required KSAs as a prerequisite to the promotional testing. This purpose is especially significant and current because the Longview Fire Department has been reviewing the entire promotional process and procedure. A recent change of leadership with a new Fire Chief who came from outside the department has also enhanced the desire to raise the level of

professionalism. Lieutenants are seen as a critically important management position for the department. Minimum training and certification standards for officers are seen as one possible component of enhanced professional development.

Implementation of any type of minimum standards, beyond the time in grade currently used, would be a significant paradigm change for this department. Officer development is a “hot” topic in the fire service now, and was discussed in many various ways during the Strategic Management of Change course at the National Fire Academy. Management of any changes resulting from this research project in a way that will benefit both the department and the individual officers is critical to the success and institutionalization of the change.

LITERATURE REVIEW

National Fire Protection Association.

The best-known national consensus standards for the fire service are those published by the National Fire Protection Association (NFPA). The NFPA standards have addressed the issue of minimum knowledge, skills, and abilities for company officers through their standard #1021 *Standard for Fire Officer Professional Qualifications* (NFPA, 1997b). This standard has been published in various revisions since 1976. The original concept was to develop an “interrelated set of performance standards specifically for the fire service.” Today, this standard defines a set of job performance requirements (JPRs) which define: (a) a task to be performed; (b) the tools, equipment, and materials necessary; and (c) the desired outcome of performance. Each JPR also lists prerequisite knowledge and skills needed to be able to perform the task. The JPR concept was instituted by the NFPA technical committee in 1997 to facilitate use of the standards as

professional qualifications in other fields besides the fire service. The standard is specifically targeted toward defining minimum competencies for fire officers.

This intent of the technical committee was to develop clear and concise job performance requirements that can be used to determine that an individual, when measured to the standard, possesses the skills and knowledge to perform as a fire officer. The committee further contends that these job performance requirements can be used in any fire department in any city, town, or private organization throughout North America (NFPA 1997b).

The NFPA divides their performance requirements into four levels of progression that are intended to represent various levels of officer responsibility. These are clearly identified in the standard as Fire Officer I, Fire Officer II, Fire Officer III, and Fire Officer IV. Chapter 1 of the standard clearly states that each department using these standards “has the option to combine or group the levels to meet its local needs and to use them in the development of job descriptions and specifying promotional standards.”

The prerequisite qualification for certification at the Fire Officer Level I is that the individual has met the requirements of Fire Fighter II as defined in NFPA #1001 *Standard on Fire Fighter Professional Qualifications* (NFPA, 1997a). Further specific skills (JPRs) for officers are broken into the following categories: (a) general prerequisite skills, (b) human resource management, (c) community and government relations, (d) inspection and investigation, (e) emergency service delivery, and (f) safety.

Texas Commission on Fire Protection.

The Texas Commission on Fire Protection (TCFP) also addresses the issue of fire officer qualifications through Chapter 451 of their standards manual (TCFP 2001b). The Texas commission's standards are divided into two classifications of certification, Fire Officer I and Fire Officer II. The subsections of the chapter follow a parallel structure that defines three basic areas: (a) who is a fire officer, based on what do they do; (b) what must a person do to be certified as a Fire Officer; and (c) examination requirements. The level definitions are as follows:

A Fire Officer I is defined as an individual who may supervise fire personnel during emergency and non-emergency work periods; serve in a public relations capacity with members of the community; implement departmental policies and procedures at the unit level; secure fire scenes and perform fire investigations to determine preliminary cause; conduct pre-incident planning; supervise emergency operations; or ensure a safe working environment for all personnel.

A Fire Officer II is defined as an individual who may evaluate the performance of personnel; deliver public education programs; prepare budget requests, news releases, and policy changes; conduct inspections and investigations; supervise multi-unit emergency operations; and identify unsafe work environments and take preventive action; or review injury, accident, and health exposure reports.

The requirements for each of the levels first include prior certification in one of three disciplines of fire protection, either: (a) structural, (b) aircraft, or (c) marine. Prior certification

as a Firefighter II is also required. The next requirement is completion of an approved training program through a state or military training institution, or completion of 15 college semester hours of fire science in specified course titles. Finally, the TCFP requires an examination process consisting of a written exam and a set of performance skills. The performance skills must be tested during an approved Fire Officer course, and must be demonstrated before a commission approved field examiner.

Other Sources.

The International Association of Fire Fighters (IAFF) has published a set of model job descriptions, which include company officer positions (IAFF 1997). These descriptions (a) give examples of the type of work performed; (b) list the required knowledge, abilities, and skills; and (c) identify desirable training and experience. The IAFF states in an opening note “The information assembled in this manual is gathered from a wide variety of sources.” They also state that the guidelines in their manual are intended to be modified for local needs. Generally, the IAFF manual recognizes that promotion to higher-level positions requires expertise in: (a) advanced firefighting techniques, (b) building construction, (c) emergency medical care, and (d) management procedures including writing and public speaking. In their sample listings of work performed there are many typical fireground command items. They place emphasis on making decisions and direction of other team members. Also listed in the work performed is: (a) conducting classes and being responsible for training, (b) maintaining discipline, (c) compiling reports and keeping records, and (d) supervising inspections.

The Department of Defense (DoD, 1998) has approved a program for certification that defines various positions or roles within their fire protection services. Each of the positions has

cross-references to the various NFPA 1000 series standards. This certification program establishes qualifications, training requirements and a certification procedure. In their certification procedure the DoD includes written knowledge testing and performance evaluations. The performance evaluations are designed to measure the candidates' ability to complete specific tasks meeting predetermined standards. Additional requirements specialized to each of the various military bases are added as required by the Fire Chief of that installation. These skills and tasks are divided into three categories referred to as "Critical," "Major," and "General." A candidate who misses one critical task, three major tasks, four general tasks, or a combined total of four major or general tasks fails the evaluation.

The DoD program requirements are broken down into eleven various job titles. The title that most closely matches the Lieutenant position in the Longview Fire Department is that of "Station Chief." The Station Chief requirements relate directly back to the NFPA designations of Fire Officer II, Fire Instructor I, and HAZMAT Incident Commander.

Of course, the Fire Service is not the only industry utilizing supervisors. A look at the mining industry, for example, brings out a lot of similarities. The mining industry is an area where there is nearly constant risk to the employees. Miners work in a dangerous environment where their actions can affect both their safety and the safety of their co-workers. Another similarity between mining and firefighting is that supervisors are still miners, as fire lieutenants are still firefighters. In both fields, supervisors often personally intervene and perform non-supervisory tasks. Effective training of miners, and mining supervisors, is an important part of the prevention of deaths, injuries, and illnesses in these workers. Section 101(a)(9) of the Federal Mine Safety Act (MSHA, 1977) promotes effective training and provides that experienced miners, including supervisors, must take training that is specific to their needs

(MSHA, 1998). The standards also realize that supervisors are subjected to many, if not more, of the same hazards that non-supervisory miners are, and requires that they receive at least the same training in basic mining subjects.

General business supervisory training sources are also very applicable to the fire service. For instance, Mt. San Antonio College (1999) has a program for new supervisors in which the suggested topics include: (a) listening and communication, (b) motivation and productivity, (c) coaching and counseling, (d) delegation, (e) legal aspects of supervisory actions, and (f) working with difficult people. These subjects, although not specific to the fire service, are clearly applicable for supervisors in public safety positions as well as the general business environment. These general supervisory subjects are fairly well represented in the other standards already examined.

The well-defined procedures and process for certification of fire officers, especially through the TCFP, changed the direction of this research project. The author had originally expected to find or develop a list of recommended classes such as the National Fire Academy's *Managing Company Tactical Operations* series, or the *Leadership I, II, III* series, or some other combination of classes of this type. This list would then be used to generate a plan of training which could be delivered "in-house" to achieve the recommended levels of proficiency in a relatively short time period. Through the literature review however, the clear benefits of the certification process became known. The focus of the internal records review changed to evaluation of the members who might be eligible for state certification.

PROCEDURES

Assumptions and Limitations

One limitation of this evaluation project is that the current system of officer selection in the Longview Fire Department has not been clearly documented and does not have as its basis a set of defined objectives. This lack of documenting the objectives for the process makes it difficult to determine if the process has been effective. Ancillary evidence suggests that it has not been. Informal discussions with incumbent company officers reveals a general feeling that they are not prepared for their role as supervisors prior to assumption of the duties. There have been various requests by officers over the years to provide some supervisory and management training, but little has been done to directly meet this need. The problem of promotion before qualification is also frequently reflected in the literature (Lytle, 2001, Smoke, 2001).

The assumption was made that all candidates for a company officer position are already at least certified, experienced, or working as a firefighter or higher ranking fire department member. The identified sources of recognized standards all shared a requirement or recommendation that this in fact should be the case. The KSA sets associated with non-supervisory firefighting positions are not included in the scope of this project.

A further limitation of the study was found in examination of the training records of the individual members. There is not currently a requirement for members to report their college education, unless they are using it to justify certification or educational incentive pay. Although many members' files did include this information at the time of the study, there is no way to verify that the information is complete. This may result in a falsely low assessment of the number of members actually possessing the defined education.

Research Methodology

One purpose of this research project was to evaluate the selection criteria used by the Longview Fire Department in promotion of Equipment Operators to the rank of Lieutenant. This project included a literature review of the standard knowledge, skill, and ability sets as documented by the recognized regulatory and standards writing agencies. A comparative table of the required elements identified in the research was constructed. This table is a summary of the various KSAs found from four sources identified. The National Fire Protection Association, Texas Commission on Fire Protection, International Association of Fire Fighters, and the Longview Fire Department requirements are included as Appendix A to this project. Additional evaluative research was used in examination of the existing training history of the department's Equipment Operators since they make up the current applicant pool. The evaluation of the practical aspects of training needs for the eligible members was conducted. These results are included in a table as Appendix B.

RESULTS

It became clear during the research that there are several established standards for what is required of a fire department company officer. These standards though, do not always align themselves exactly with each other. Of the several sources identified that list the requirements for fire officers, there were many items in common. But each source listed some unique knowledge, abilities, or skills. Likewise, no one standard was inclusive of all the listed items in any of the other standards.

It became clear that the current Longview system of requiring time in grade is not reflected in any of the recognized standards. The NFPA and TCFP did recognize the need for, and require, prior certification as a Firefighter II, but no specific time frames or length of service were listed. The IAFF suggested that a history of five years as a firefighter would be desirable, but also recognizes any equivalent combinations of education and experience (IAFF, 1997). Experience alone does not provide any verification that the candidate has the required knowledge or skills for the position.

While job performance can never be measured without letting a person actually do the job first (Lytle, 2001), it does become apparent that most national fire service organizations seek some type of education or certification program. Such a program would greatly increase the likelihood of competence in those promoted to supervision positions.

In order to establish some type of comparison between the various standard KSA sets identified in the research, Appendix A was created. This appendix table summarizes the major components of the identified recommendations, and allows comparison with the KSA set currently in use in Longview. This comparative table clearly shows the items with their location in the various standards.

Answers to Research Questions

Research Question 1. The Longview Fire Department has developed a job specification for Lieutenant, in the approved format of the city (Longview, 2000). This specification describes in a fairly high level of detail what abilities and skills are required. (The specification consists of 12 pages of small size print and is included as Appendix C for reference.) The Longview specification also details: (a) essential job functions, (b) other important job functions, (c)

supervision received and exercised, (d) types of contacts, (e) equipment and protective equipment used, (f) physical demands, (g) cognitive skills, (h) non-physical demands, and (i) environmental hazards faced. Estimations of the amount of time (as a percentage of the total) spent on each activity or using each tool are included. This job specification has been revised several times in the last five years to be more inclusive of the broad spectrum of duties and responsibilities actually faced by a supervisor in the fire service today. It was interesting to note that despite the level of detail, the job specification still did not list most of the items identified in the NFPA and TCFP listings for general prerequisite knowledge. Also lacking was complete coverage of the safety and fire investigation areas as they recommended.

Research Question 2. Three sources of nationally recognized standards were identified. The National Fire Protection Association (1997b) and Texas Commission on Fire Protection (TCFP, 2001b) both have standard sets of knowledge, skills, and abilities defined for various levels of fire officers. The TCFP standard is generally referenced to NFPA 1021, although the exact wording does not match. Also identified is a sample job description published by the International Association of Fire Fighters (IAFF, 1997) which lists many of the same items, but does not directly cross-reference any other standard. It should again be noted here that both the NFPA and TCFP require prior certification as a Firefighter II as a prerequisite, and the IAFF recommends five years experience. Presumably this would be adequate to acquire the needed knowledge and learn the skills.

The knowledge, skill, and ability items identified as basic, non-supervisory firefighting requirements are not further documented in this work. All members of the Longview Fire Department are certified by the TCFP at least to the basic structural firefighter level. According to information obtained by telephone with a TCFP representative, this certification level is

inclusive of all job requisites listed in the NFPA Firefighter II standards. Some areas of prerequisite knowledge found in the city job specification (Longview, 2000) were not present in any of the three other standards. These items were primarily focused in the delivery of emergency services area, and generally included rescue, hazardous materials, fire service mathematics, and local geographic knowledge.

Research Question 3. The answer to this question lies in how exactly the department chooses to recognize that a given applicant has the required knowledge, skills, and abilities. If the TCFP certification were used as an indicator of having met the requirement, the applicant pool would suffer immediately. Due to the newness of the certification standard in Texas, no current members of the department hold the certification. The commission has, however, established a window of opportunity for people to apply and test for the certification with more lenient education requirements. This window of exception ends January 31, 2002.

Review of the training files of the current cadre of Equipment Operators reveals that only two members currently have the educational requirements to be eligible for the certification. The details of this review are included as Appendix B of this project. The table evaluates the specific college courses required by the Texas Commission on Fire Protection for Fire Officer I certification. Where records of college credits are on file with the department, the semester in which the course was taken is identified.

Also listed in the table are some standard National Fire Academy courses that may cover the same type of material. Documentation of these alternative courses could possibly serve as a substitute for the college, especially for incumbent officers who are near the end of their career. During the first year of the certification process, the commission will be accepting only the college credit option. Later, there will be commission approved educational programs designed

specifically to meet the entire course requirement without the college options. This comprehensive approved course is not yet available.

DISCUSSION

This research project is especially timely not only because the departmental promotion policy is in transition, but also because through this research, the newly established Texas fire officer certifications were discovered. The TCFP only this year established the certification standards, and began implementation of the testing process effective February 1, 2001. How should this impact the department? Serious consideration should be given to including these certification requirements somewhere in the professional development of our supervisors. The selection decision is an important one, and the consequences of a poor decision can have a very long-term impact on the department (Edwards, 2000).

National Fire Protection Association standard #1021 is clearly applicable for specifying departmental promotional standards. In fact, chapter one of the standard specifically states that this is the intended purpose (NFPA, 1997b). Special attention should be made of the fact that most of the items deal with “soft” skills, rather than the more technical task oriented items found in the firefighter qualifications. Emergency service delivery is only one section of the standard, as it is only one part of the job of a fire supervisor. This highlights the fact that there is much more to being an effective supervisor than just being an efficient or skilled emergency service provider. In fact, most of the duties of a supervisor will be relating to people: in human resource management, in community relations, during inspections, and during the course of emergencies.

Unlike the NFPA, which defined four levels of fire officers, the TCFP only defines two levels, Fire Officer I and Fire Officer II. The commission has released a curriculum manual (TCFP, 2001a), which references both the state standards and the NFPA. This manual provides additional details in an outline format and makes the knowledge items more specific. These tie in closely with the job performance requirements (JPRs) from the NFPA document. The curriculum manual also sets a number of classroom hours (50) that are needed to cover the required content.

The two classifications used (Fire Officer I and Fire Officer II) by the TCFP do not closely match the current responsibilities of the incumbent Lieutenants in this department, as identified in the city job specification. Currently, all items from the Fire Officer I definition match the job specification in addition to most of the items from the Fire Officer II definition. Those tasks listed by the TCFP that are not currently expected of the LFD Lieutenants are to: (a) prepare news releases; and (b) review injury, accident, and health exposure reports. This combination of requirements into just two certification levels drives the recommendation to use a phased approach to requiring certification. The first phase would be certification as a Fire Officer I prior to promotion, then as a Fire Officer II at a later point after assuming the duties.

The DoD manual (DoD, 1998) defines as part of the purpose of their program to “enhance the training process, improve performance, and strengthen the professionalism of all DoD Fire and Emergency Services personnel.” They further define as an objective to “provide a comprehensive and fair career progression program” The DoD uses the NFPA 1021 standard as the framework for their program.

As defined for the mining industry, supervisors are subjected to at least as many hazards as are non-supervisory workers (MSHA, 1998). This is true of the company officers in a fire department as well. This exposure mandates that these supervisors receive at least the same training on the basic tasks and safety procedures for firefighting.

While comparing the Longview job specification to the generally recognized KSA sets as identified in the research, it was noted that there are some items, especially in the knowledge descriptions, that are not included in the specification. This lack of inclusion does not indicate that the Longview officers do not possess or have a need to possess this knowledge. Since many of these items are identified both by the NFPA and TCFP they may be considered valid job requirements for the position.

It became apparent through the research that most fire service regulatory organizations recognize or seek some type of education or certification program for officer qualification. This is finally being seen as a way to establish the profession of firefighting and gain increased recognition as such (Smoke, 2001). Such a program would greatly increase the likelihood, but not guarantee, the competence of those promoted to supervision positions.

RECOMMENDATIONS

As mentioned previously, the author had originally expected to find or develop a list of recommended classes such as the National Fire Academy's 12 hour programs that would meet the needs of officer training in the department. The well-defined process for officer certification, as discovered, changed the expected results and recommendations of this project. The list originally envisioned would have been used to generate a departmental plan of training to be

accomplished over a relatively short time period. Through the research process, however, the recommendations now center on certification of fire officers through the TCFP.

More research / continuing evaluation

More research needs to be done on fire service supervisor training programs. Further evaluation of the necessary components of the required training is needed. Another important area of study is the effectiveness of those supervisor training programs that are in existence. A comparative study of the performance of trained supervisors vs. untrained supervisors should be conducted.

Other industries were looked at briefly during the literature review. Many similarities were found in the needs of supervisor training between other industries and the fire service. Future researchers should pay special attention to the many other diverse industries where the impact of supervisor performance can affect both work team and client or public safety including the military, the mining industry, the food service industry, the commercial fishing industry, oilfield production, electrical generation and distribution, construction, heavy manufacturing, etc. Researchers should avoid the tendency to focus only on the fire service. This idea is further reinforced by the moves NFPA has been making toward defining JPRs that are not fire service specific.

Require certification as a Fire Officer I.

One of the easiest ways to verify at least minimum qualifications for the position of Lieutenant is to require state certification as a Fire Officer I prior to promotion. Such certification provides a benchmark by which the individual's competence can be measured. This

benchmark would carry a high degree of validity since it is both reliable and relevant, or job related. The fact that the examination is designed and conducted by a neutral outside party.

Since this would be a significant paradigm change in the way promotions are handled, it should be communicated now with an effective date two to three years in the future. Immediate implementation could result in a temporary lack of qualified candidates and subsequent unfillable vacancies. Incumbent Lieutenants should also be required to seek certification, possibly with the aid of department provided training.

The current pay structure of the department has two compensation levels established for Lieutenants. The second level of pay can be used as a natural incentive for achieving certification as a Fire Officer II as soon as possible after promotion. The structure of the Texas Commission's officer requirements with division into just two certification levels reinforces the ability to use a phased approach to requiring certification. Fire Officer I can be required prior to promotion, then Fire Officer II at a later point in time, after assuming the duties. This is also consistent with the overlap between the Longview requirements and the standards established by the TCFP.

Waiting until after promotion to achieve certification would create a negative economy of scale and undue burden on the department. Because there are relatively few positions, there is relatively slow turnover. By waiting until after a member is promoted to a Lieutenant, there will be only a slow trickle of people seeking the required training courses, and the resulting class size is not economical for either the local colleges, or the department's training division. Requiring certification prior to examination will mean that a large percentage of the pool of potential applicants will be seeking the training. This does two things: First, it increases the education

level of a larger number of the department's members, and second, it allows reasonable sized classes to be scheduled by a training facility.

Provide necessary training for the incumbent officers.

All current company officers in the department should be provided with, and encouraged or required to take advantage of, training opportunities to meet the minimum requirements for certification as defined by TCFP. It is only reasonable that if a certain training or certification will be considered a prerequisite for new officers, the incumbents should also demonstrate and verify that they have the same knowledge and abilities. Although the TCFP certification standard is very new, the NFPA recommendations have been in place for many years. Many of the incumbents may already have knowledge in the defined areas and some may be immediately eligible for state certification. Local training sessions would be especially relevant opportunities to pass this knowledge from the more senior officers to the more recently promoted officers and eligible promotional candidates.

Requiring certification of all officers not only shows an objective comparison to the benchmark, but also may help provide other benefits including protection from liability, recognition of professionalism, and budget and salary justifications (Smoke, 2001). The benefits of having tangible evidence of officer competency can apply both to the department and to the individual officers. Consistent, realistic standards for assessing KSAs of officers will result in further job satisfaction and equality in application of evaluations.

Incorporate the state skills checks in the promotional assessment process.

Since the TCFP has established a series of skills exams for Fire Officer I, these should be considered for inclusion in the practical examinations during each departmental promotional assessment process. This evaluation will provide an objective job performance standard by which an individual can be measured. Although members may have been previously tested on these skills, and even certified as a fire officer, testing at the departmental level can be further customized to follow the policy and procedures of this department. This will also serve as a timely verification of skill retention and ability to apply the skill to unique local situations.

Revise the City of Longview job specification for Lieutenant

Based on the fact that several areas of prerequisite knowledge are not adequately covered by the job specification, and the fact that these areas are validated by inclusion in the NFPA and TCFP standards, these areas should be closely examined for inclusion in the next revision of the job specification. (Appendix A of this project is a source of rapid comparison between the standards that will aid this review process.) Previous revisions of the job specification have also been based on outside sources and other agencies' descriptions of the job, so this recommendation is consistent with those development practices. Development of a sound, legally defensible job analysis and job specification is essential to the success of the fire department (Edwards, 2000). Further extension of this idea would suggest that the TCFP and NFPA be referred to in a review of at least the Captain rank and possibly all other officer positions within the department.

General recommendations

The performance evaluations of department supervisors should be closely based on the objective performance criteria identified by the accepted national and state standards. These criteria will serve as consistent, realistic guidelines for evaluating the many various functions of a fire officer in a modern department. Having a tangible method of defining the JPRs for each position is very important. Further, realistic performance evaluations will allow overall evaluation of the effectiveness of training programs and identification of the training needs of the department.

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APPENDIX A

Comparative Table of Required KSAs

The following table compares the specific elements of knowledge, skills, and abilities found in the National Fire Protection Association's Standard for Fire Officer Professional Qualifications, (NFPA 1997), the Texas Commission on Fire Protection Certification Curriculum Manual for Fire Officer 1 (TCFP 2001), the International Association of Fire Fighters Job Description (IAFF 1997), and the City of Longview Job Specification for Fire Lieutenant (Longview, 2000).

General Prerequisite Knowledge	NFPA	TCFP	IAFF	Longview
Knowledge of the organizational structure of the fire department.	2-1.1	911-1.01		
Knowledge of the fire department organizational principals.		911-1.02		
Knowledge of different types of organizational structures.		911-1.03		
Knowledge of departmental operating procedures for administration, operations, and safety.	2-1.1	911-1.04		
Knowledge of the responsibilities of the company officer within the organizational structure.		911-1.05		
Knowledge of the typical duties of the company officer within the organizational structure.		911-1.06		
Knowledge of departmental budget process.	2-1.1	911-1.15		
Knowledge of information management and record keeping systems.	2-1.1	911-1.07		K7
Knowledge of fire prevention programs used by the fire department		911-1.08		
Knowledge of fire prevention codes and building safety codes applicable to the jurisdiction.	2-1.1	911-1.09		
Knowledge of the Incident management system used by the department.	2-1.1	911-1.10		K1 K6
Knowledge of socioeconomic and political factors that impact the fire service.	2-1.1	911-1.11		
Cultural diversity.	2-1.1			
Methods to obtain cooperation within a group of subordinates.	2-1.1	911-1.12		K7
Rights of management and members.	2-1.1	911-1.13		
Agreements in force between the organization and members.	2-1.1			
Policies and procedures regarding the operation of the department as they involve supervisors and members.	2-1.1	911-1.14		

APPENDIX A
Comparative Table of Required KSAs

General Prerequisite skills	NFPA	TCFP	IAFF	Longview
The ability to communicate verbally and in writing, write reports.	2-1.2		Work Item 11	A12 S3
The ability to operate in the incident management system	2-1.2			A8
Skill to operate various computerized devices including specialized medical equipment, computer terminals, and personal computers.				S4

Human Resource Management	NFPA	TCFP	IAFF	Longview
Knowledge of verbal communications during emergency situations, techniques used to make assignments under stressful situations, methods of confirming understanding.	2-2.1(a)	912-1.01		
Knowledge of verbal communications under nonemergency situations, techniques to make assignments under routine situations, methods of confirming understanding	2-2.2(a)	912-1.02		
Knowledge of verbal communication techniques to facilitate learning	2-2.3(a)	912-1.03	KSA 4	
Knowledge of the signs and symptoms of member-related problems; causes of stress in emergency personnel; adverse effects of stress on the performance of emergency service personnel.	2-2.4(a)	912-1.04		
Knowledge of human resource policies and procedures.	2-2.5(a)	912-1.05		K7
Knowledge of the principles of supervision and basic human resource management	2-2.6(a)	912-1.06		K7
Ability to condense and issue instructions for frequently assigned tasks based on training and SOPs	2-2.1(b) 2-2.2(b)	Skill 3	Work Item 1 & 2	A5
Ability to distribute issue-guided directions to unit members during training evolutions	2-2.3(b)	Skill 4	Work Item 10	A5
Ability to recommend a course of action for a member in need of assistance.	2-2.4(b)	Skill 5		
Ability to communicate verbally and in writing and to relate interpersonally.	2-2.5(b)		Work Item 4	A5 S3
Ability to plan and set priorities	2-2.6(b)	Skill 2		A13
Ability to apply policies and procedures in an administrative situation concerning a subordinate.		Skill 6	Work Item 3	K7
Skill to supervise and evaluate assigned subordinate personnel in both emergency and non-emergency situations.				S7

APPENDIX A
Comparative Table of Required KSAs

Community and Government Relations	NFPA	TCFP	IAFF	Longview
Knowledge of interpersonal relationships and verbal and nonverbal communication	2-3.1(a)			K7
Knowledge of proper actions in response to a citizen's request		913-1.01		
Knowledge of all federal, state, and local laws relative to the activities of the fire department			KSA 3	K7
Ability to initiate action to citizen concerns.		Skill 7		A6
Ability to relate interpersonally and to respond to public inquiries	2-3.1(b)	913-1.02 Skill 8		A6

Administration	NFPA	TCFP	IAFF	Longview
Knowledge of Written and Verbal Communication	2-4.1(a)			
Knowledge of administrative policies and procedures and records management	2-4.2(a)	914-1.01 914-1.02	KSA 3	K7
The ability to relate interpersonally	2-4.1(b)			A5 A6
The ability to communicate verbally and in writing	2-4.2(b)		Work Item 4	A5 A12 S3
The ability to identify and apply a policy addressing an administrative issue.		Skill 6		A4
The ability to execute routine unit-level functions.		Skill 10		

APPENDIX A
Comparative Table of Required KSAs

Inspection and Investigation	NFPA	TCFP	IAFF	Longview
Knowledge of common causes of fire, fire growth and development, and policies and procedures for calling in investigators.	2-5.1(a)	915-1.01 915-1.02		
Knowledge of the types of evidence; the importance of fire scene security; and evidence preservation.	2-5.2(a)	915-1.05 915-1.06 915-1.07		
Knowledge of building construction, electric power, and related codes.			KSA 5	A7
The ability to determine basic fire cause and the ability to conduct interviews and write reports.	2-5.1(b)	915-1.03 915-1.04 Skill 11		A12 S3
The ability to establish perimeters at an incident scene.	2-5.2(b)	915-1.05b Skill 11		
Command the inspection of residential, commercial and industrial property relative to fire prevention when required.			Work Item 12	A7

Emergency Service Delivery	NFPA	TCFP	IAFF	Longview
Knowledge of the elements of a preincident plan, basic building construction, basic fire protection systems and features, basic water supply, basic fuel loading, and fire growth and development.	2-6.1(a)	916-2.01 916-2.02	KSA 5	K4
Knowledge of the elements of a size-up, standard operating procedures for emergency operations, and fire behavior.	2-6.2(a)	916-1.01 916-1.02	KSA 2	K1
Knowledge of SOPs, resources available, basic fire control and emergency operation procedures, an incident management system, and a personnel accountability system.	2-6.3(a)	916-1.02 916-1.03 916-1.04 916-1.05 916-1.06	KSA 1 KSA 2	K1 K6
Knowledge of the operation and maintenance of all apparatus and equipment			KSA 1	K3
Knowledge of the principals, practices, and procedures of various rescue techniques				K1
Knowledge of the principals, practices, and procedures of hazardous material handling.				K1
Knowledge of the principals of mechanics, hydraulics, and mathematics related to fire service topics.				K4
Knowledge of city geography including streets, bridges, waterways, buildings, locations of water mains and fire hydrants.				K5

APPENDIX A
Comparative Table of Required KSAs

Emergency Service Delivery (continued)	NFPA	TCFP	IAFF	Longview
The ability to write reports, to communicate verbally, and to evaluate skills.	2-6.1(b)	916-2.03		A12
The ability to analyze emergency scene conditions, to allocate resources, and to communicate verbally.	2-6.2(b)	Skill 1	Work Item 6	A3 A5 S2
The ability to implement an incident management system, to communicate verbally, and to supervise and account for assigned personnel under emergency conditions.	2-6.3(b)	Skill 1	Work Item 7	A6 S2
The ability to develop a pre-incident plan.		Skill 12		
Mechanical Aptitude			KSA 6	K4
Agility and strength to do prolonged and arduous work under adverse conditions.			KSA 7	A3
Ability to react quickly and remain calm under duress and strain.			KSA 8	A3
Respond to alarms and direct the route to be taken to the fire.			Work Item 5	K5 A10
Ability to apply basic math in performing field calculations of fire service hydraulics.				A11
Skill to select and use appropriate specialized firefighting and medical equipment.				S1
Skill to safely drive and properly operate any fire department apparatus, vehicle, equipment, or tool in a variety of emergency and non-emergency situations and environmental conditions.				S5
Skill to identify and overcome equipment failures during emergency situations.				S6
Direct the overhauling and cleaning up of premises after the fire has been extinguished			Work Item 8	
Direct the return of all apparatus and equipment to their proper places in the fire hall.			Work Item 9	

APPENDIX A
Comparative Table of Required KSAs

Safety	NFPA	TCFP	IAFF	Longview
Knowledge of the most common causes of personal injury and accident to the members, safety policies and procedures, basic workplace safety, and the components of an infectious disease control program.	2-7.1(a)	917-1.01 917-1.02		
Knowledge of procedures for conducting an accident investigation, and safety policies and procedures.	2-7.2(a)	917-1.03		
Knowledge of location of hazardous occupancies in the municipality			KSA 5	K5
Ability to conduct an initial accident investigation.		Skill 13		
Ability to identify safety hazards and to communicate verbally and in writing.	2-7.1(b)			
Ability to communicate verbally and in writing and to conduct interviews.	2-7.2(b)			A12
Ability to implement a new policy to apply safety regulations		Skill 9		

APPENDIX B

Training Filed with Department

The following table evaluates the specific college courses required by the Texas Commission on Fire Protection for Fire Officer I certification. Also listed are some standard National Fire Academy courses that likely cover the same type of material, and may serve as a substitute. Where records of college credits are on file with the department, the semester in which the course was taken is identified.

Employee Number	Fire Prevention Codes and Inspections	Fire and Arson Investigation I or II	Fire Administration I	Firefighting Strategies and Tactics I or II	Company Fire Officer / Other
03630					
06505				MCTO: Decision Making MCTO: Tactics	Fire Supervision: Increasing Team Effectiveness Fire Supervision: Increasing Personal Effectiveness
09100					Fire Supervision: Increasing Personal Effectiveness
10800	Spring 83	Fall 84	Fall 84		
10930					
11200					
13050					
13500					Management Training 32 hrs.
13640					
16090				MCTO: Preparation MCTO: Decision Making MCTO: Tactics	Fire Supervision: Increasing Team Effectiveness Fire Supervision: Increasing Personal Effectiveness
17300				MCTO: Preparation MCTO: Decision Making	NFA: Leadership I Fire Supervision: Increasing Team Effectiveness Fire Supervision: Increasing Personal Effectiveness
17600	Spring 83	Spring 83	Spring 84	Fall 82	
20649					
21075					

APPENDIX B
Training Filed with Department

Employee Number	Fire Prevention Codes and Inspections	Fire and Arson Investigation I or II	Fire Administration I	Firefighting Strategies and Tactics I or II	Company Fire Officer / Other
24055					
25300					
27830					
30200	Fall 80	Fall 79		Spring 80	
30570					
30650					
31760					
33920	NFA: Inspections	Spring 96			
34890					
37700					
38300					
39400					
41055	X	X	X		
41885					
42387			Fall 95	MCTO: Decision Making MCTO: Tactics	Fire Supervision: Increasing Team Effectiveness Fire Supervision: Increasing Personal Effectiveness
44400					
44900					
46200					
47220					
47800					
50490					
51160					
53245					Management Training 32 hrs.
54500	Spring 76	Spring 70 Spring 83	Fall 75	Spring 70	
55660					
56590	NFA: Inspections	NFA: Arson Detection		Fall 93 MCTO: Preparation	
57175	Spring 78				Staff & Command Course
59195					
59210					Management Training 32 hrs.
59253					

APPENDIX C

City of Longview

Job Specification for Fire Lieutenant